# HIV SELF-TEST DISTRIBUTION INCREASES TEST FREQUENCY IN SOUTH AFRICAN MSM

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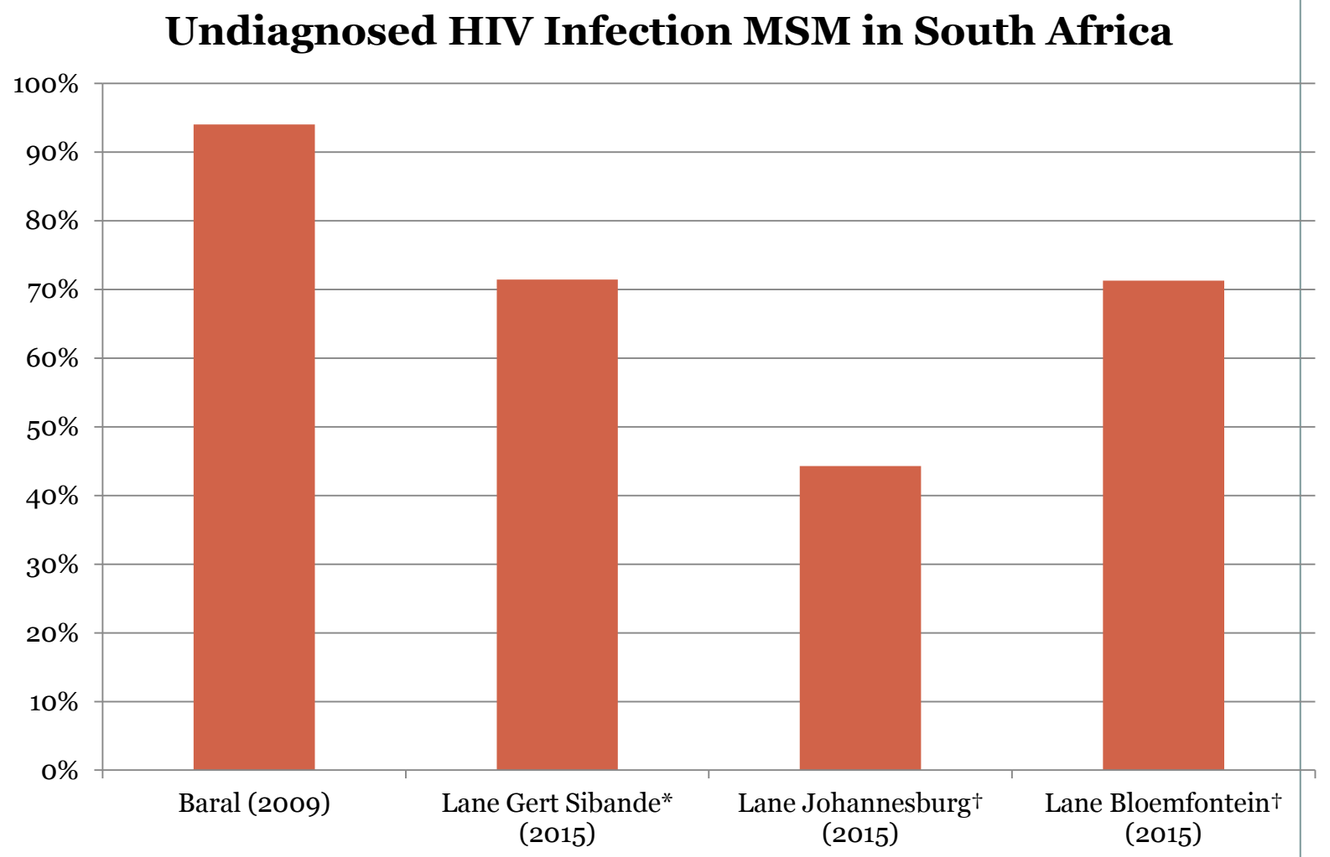
# Potential of HIVST for MSM

- Estimated 40% of PLWH are undiagnosed globally§
  - Estimated 65-70% of MSM are undiagnosed in South Africa
- Social barriers to testing – concerns with confidentiality layered stigmas (sexual orientation / HIV)
- Prevention Synergy:  PrEP requires frequent HIV-testing
- Partner testing & harm reduction



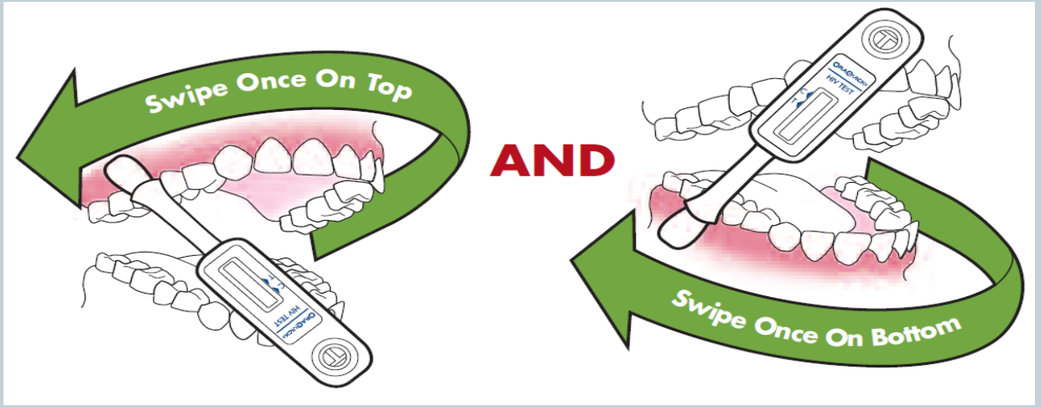

§ UNAIDS 2016 Prevention GAP Report
* Lane, T.  UCSF/ANOVA Mpumalanga Men's Study.
† Lane, T.  South African Men's Health Monitoring Study

# Study Objectives

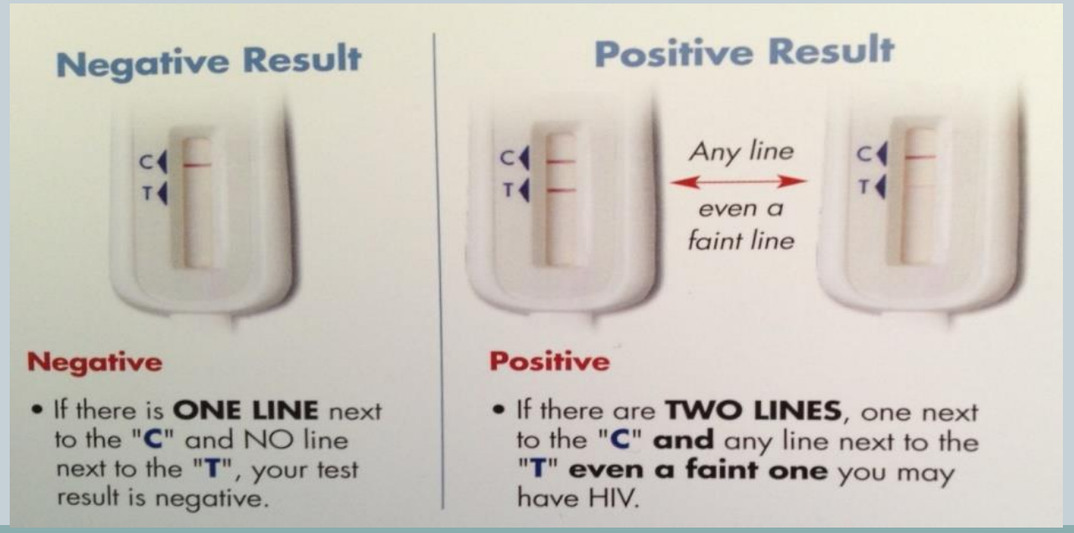
1. Determine the **acceptability & feasibility** of HIV self-testing and peer-based distribution among HIV-negative MSM in high prevalence settings in South Africa
2. Determine whether HIVST will **increase HIV testing uptake & frequency** among MSM
3. Determine whether using HIV self-test kits changes **behaviors**
4. Explore **linkage** following HIVST

# HIV self-tests - Oral Fluid

## OraQuick® Rapid Antibody Test HIV 1/2

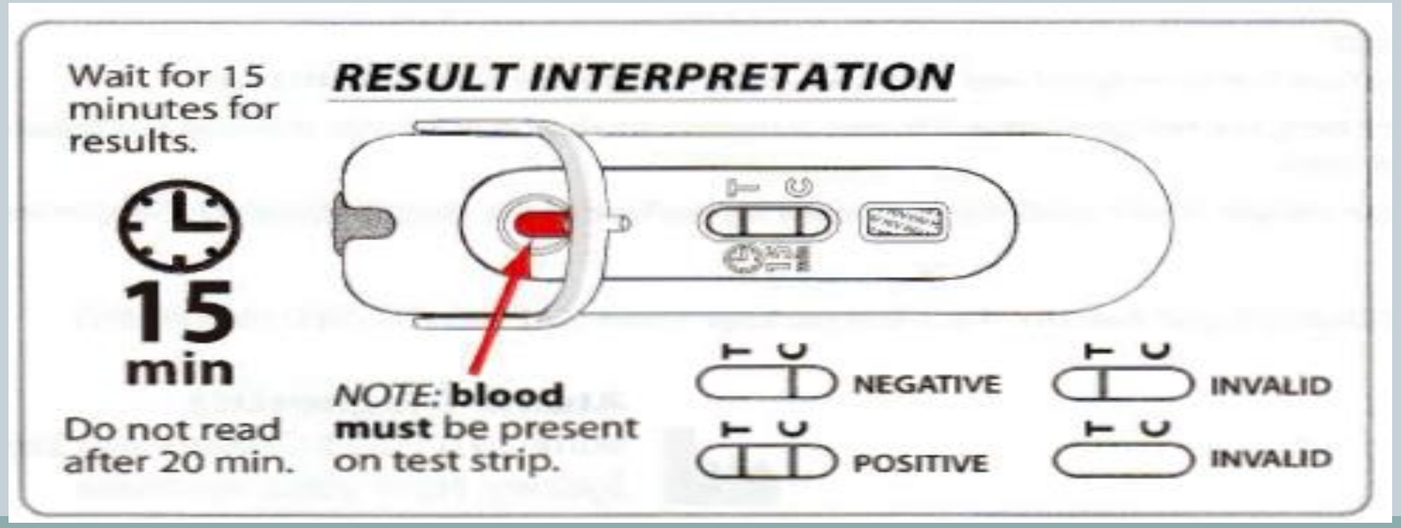







# HIV self-tests – Finger Stick

## AtomoRapid™ HIV 1-2 blood test



# Study design – self-use and distribution

- Recruited HIV-negative MSM to use test kits at home
  - Gert Sibande – recruitment May - June 2015
  - Ehlanzeni – recruitment August - October 2016
- Participants were shown both kits & selected one
- Participants were given 5 HIV kits at 1st visit & 4 kits at 2nd
  - Participants advised that the test-kits can be used/shared with any partner / friend with whom they feel comfortable testing
- Returned for 2 follow-up visits (3 & 6 mos) –
  - Responded to surveys & delivered test logs

# Cohort Recruitment & Retention

| Gert Sibande (MPMS cohort) N=55 | Ehlanzeni (MPMS + RDS) N=72 |
|---|---|
| • 64 screened<br>• 6 were ineligible<br>  ○ Not living in the area (6)<br>• 3 declined to participate<br>• Participation rate of 95% (55/58). | • 107 screened<br>• 27 ineligible<br>  ○ Not living in the area (8), refused HIV test (2), not MSM (3), under 18 yrs (2), and HIV-positive (12).<br>• 8 declined participation<br>• Participation rate of 90% (72/80). |

127 MSM enrolled → 98 returned for 3-month visit

110 returned for 6-month

Overall 116 (91.3%) returned at least once to report on HIVST use.

# Participant Characteristics

- Young population – 65% of the participants ages 18-24
- Most had achieved matric.
- Largely unemployed - 30% reporting paid work in the last six months
- 83% had regular male partners; but 68% identified as bisexual
- HIV testing history prior to the MPMS/HIVST research
  - 15% had never tested,  19% had not tested in the last year, 28% tested 6-12 months ago
  - 38% achieving recommended testing frequency.

# Results: Participant Utilization of HIVST

| Participant Utilization and Testing Conditions | Overall (n=127) | | Gert Sibande (n=55) | | Ehlanzeni (n=72) | |
|---|---|---|---|---|---|---|
| **HIVST kits used by participant** | n | % | n | % | n | % |
| None (reported no testing or LTF) | 11 | 8.7 | 2 | 3.6 | 9 | 12.5 |
| 1 test | 43 | 33.9 | 19 | 34.5 | 24 | 33.3 |
| 2 tests | 59 | 46.4 | 32 | 58.2 | 27 | 37.5 |
| 3+ tests | 14 | 11.0 | 2 | 3.6 | 12 | 16.7 |
| **Test(s) selected** | | | | | | |
| Blood | 70 | 55.1 | 30 | 54.5 | 40 | 55.6 |
| Oral fluid | 25 | 19.7 | 9 | 16.4 | 16 | 22.2 |
| Selected both (enroll / 3 mo) | 32 | 25.2 | 16 | 29.1 | 16 | 22.2 |
| **Testing Condition[δ]** | **N=116** | **%** | **N=51** | **%** | **N=65** | **%** |
| Always tested alone | 79 | 68.1 | 37 | 72.5 | 42 | 64.6 |
| Ever Tested with others | 37 | 31.9 | 14 | 27.5 | 23 | 35.4 |
| Tested concurrently | 28 | 24.1 | 12 | 23.5 | 16 | 24.6 |
| **Participant seroconversions** | 6 | 4.7 | 2 | 3.6 | 4 | 5.6 |

[δ] Among participants responding to at least 1 follow-up survey

# Results: Participant Distribution of HIVST

| Participant Distribution of HIVST to others | Overall (n=127) | | Gert Sibande (n=55) | | Ehlanzeni (n=72) | |
|---|---|---|---|---|---|---|
| **Distributed at least 1 test to[α]** | **N=116** | **%** | **N=51** | **%** | **N=65** | **%** |
| Friends | 112 | 96.6 | 49 | 96.1 | 63 | 96.9 |
| Sexual Partners | 76 | 65.5 | 34 | 66.7 | 42 | 64.6 |
| Family members | 97 | 83.6 | 45 | 88.2 | 52 | 80.0 |
| **Total tests distributed [β]** | **N=728** | **%** | **N=332** | **%** | **N=396** | **%** |
| Sexual Partners | 135 | 18.5 | 57 | 17.2 | 78 | 19.7 |
| Friends | 376 | 51.6 | 167 | 50.3 | 209 | 52.8 |
| Family members | 217 | 29.8 | 108 | 32.5 | 109 | 27.5 |
| **Distributed test results** | | | | | | |
| Negative | 522 | 71.7 | 233 | 70.2 | 289 | 73.0 |
| Positive | 40 | 5.5 | 10 | 3.0 | 30 | 7.6 |
| Invalid | 27 | 3.7 | 8 | 2.4 | 19 | 4.8 |
| Don't know | 139 | 19.1 | 81 | 24.4 | 58 | 14.6 |

[α] n/%s are independent – participants reported distributing to multiple people

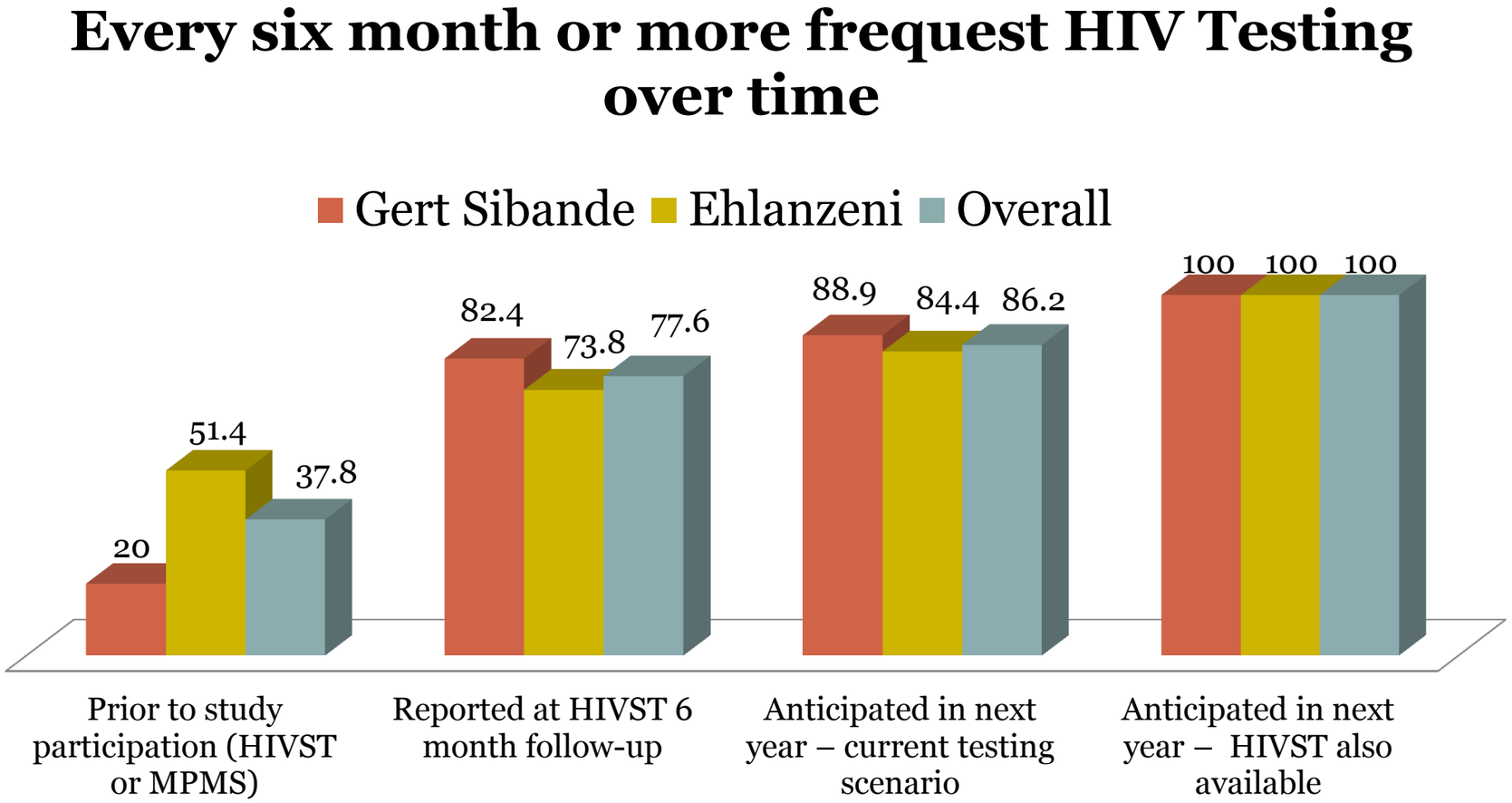
[β] Among participants responding to at least 1 follow-up survey

# Results: Participant Preferences

| Participant Preferences | Overall (n=127) | | Gert Sibande (n=55) | | Ehlanzeni (n=72) | |
|---|---|---|---|---|---|---|
| | | | | | | |
| **Testing Preference [α]** | **112** | **%** | **N=51** | **%** | **N=55** | **%** |
| Prefer HIV self-test | 93 | 83.0 | 43 | 84.3 | 50 | 82.0 |
| Prefer to test with a provider | 12 | 10.7 | 7 | 13.7 | 5 | 8.2 |
| No preference | 7 | 6.2 | 1 | 2.0 | 6 | 9.8 |
| **HIVST kit preference [β]** | | | | | | |
| Blood | 51 | 64.6 | 23 | 63.9 | 28 | 65.1 |
| Oral fluid | 27 | 34.2 | 13 | 36.1 | 14 | 32.6 |
| No preference | 1 | 1.3 | 0 | 0.0 | 1 | 2.3 |

[α] Among those who utilized HIVST and responded to at least 1 follow-up survey
[β] Among those who stated preference for HIVST (only asked at 6 months)

# Results: Does HIVST Increase Testing Frequency?




Significant testing increase after HIVST introduction compared to prior to study ($p<.01$); significant difference in anticipated testing under the HIVST enhanced scenario compared to HCT only.

# Results: Linkage to care

## Our HIVST study – with active follow-up

- 7 participants using HIVST for diagnosis
  - 6 during follow-up
  - 1 in a formative phase
- 5 linked, 1 did not, 1 stated linkage intentions
- 70% linkage (5/7) within 3 months of diagnosis

## Current linkage rates

- Close to SA national rates in general population - around 70%;
- Recent surveillance with MSM (PI: Lane)† found that 50-60% of known positive MSM report linking to care

† UCSF/ ANOVA/CDC/NDOH. South African Men's Health Monitoring Study. Unpublished; personal communication.

# Reported benefits and harms

- Half stated that having access to HIVST improved communication around HIV and many specifically mentioned dialogue with their partners.
- Potential to open up discussions about testing and treatment in the MSM community.

- No evidence of social harms.

# Conclusions

- Preference for HIVST over clinic-based testing
- Network distribution was highly successful at detecting infections  (and encouraging HIV-related discussions)
- Likelihood that testing frequency would increase if HIVST were made available
- Linkage following HIVST equivalent to national HCT average
- No evidence of social harms

# Thoughts for HIVST implementation

- Work to ensure blood and oral fluid products are available
  - More options – can maximize frequent testing.
- Distribution channels for stigmatized groups
  - Through CBOs (safe spaces), trained peers & health workers
  - Encourage discrete packaging
- Market for partner testing
  - Why only 1 in a package?
  - Evidence of increased HIV testing conversations with partners and family (lost opportunity for partner testing if packaged for 1).
- Optimize instructional materials
  - **Apps** / videos / IFUs
    - Videos are helpful but many can't stream on their phones.

# Thank you!

Questions?
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Results published
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Updates – check HIVST.org

Fabulous study team

University of California San Francisco
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